

Core Precalculus

Q2 Lesson Plans

Date	
Topic	
Textbook reference	
Vocabulary	
Objectives/Sequence	
Notes	
HW	

Week of 25-29 October

Date	Monday 10/25
Topic	Polynomial and rational inequalities
Textbook reference	4.4
Vocabulary	
Objectives/Sequence	<ul style="list-style-type: none"> Solving equations and inequalities graphically – start w/DS HL graph! Polynomial inequalities – use knowledge of graphs Algebraic method – interval/test point method Extend to rational inequalities
Notes	Time management problems today – did not do algebraic methods
HW	HW#15 Page 210 # 33, 37, 55 Page 217 # 5-25 odd

Date	Wednesday 10/27
Topic	Inequalities (continue from last time) Real zeros of a polynomial function
Textbook reference	4.4 (continued), start 4.5
Vocabulary	Synthetic division, factor theorem, remainder theorem
Objectives/Sequence	<ul style="list-style-type: none"> Finish inequalities from last time – start w/algebraic method Synthetic division <ul style="list-style-type: none"> Apply to oblique asymptote Factor theorem/remainder theorem
Notes	Collect HW#11-15
HW	HW#16 Page 217 # 20-26 even, 35-37 Page 232 # 11-17 odd, 85, 87

Date	Friday 10/29
Topic	Rational Zeros Theorem
Textbook reference	4.5 continued
Vocabulary	
Objectives/Sequence	<ul style="list-style-type: none"> • Rational Zeros Theorem • Applications
Notes	Omit 4.6
HW	HW#17 Page 232 # 21-30 mult of 3, 39, 49 Page 240 # 5-50 mult of 5

Week of 1-5 November

Date	Tuesday 11/2
Topic	Review
Textbook reference	Chapter 4, Sections 4.1-4.5
Vocabulary	
Objectives/Sequence	<ul style="list-style-type: none"> • Concept Map (in pairs) – by hand, or using tech • Review handout
Notes	No one chose tech (e.g. Inspiration) for the concept map! (One pair tried and abandoned it.)
HW	

Date	Thursday 11/4
Topic	Chapter 4 Test
Notes	
HW	

Week of 8-12 November

Date	Tuesday 11/9
Topic	Composite functions, inverse functions
Textbook reference	5.1, 5.2
Vocabulary	Composite/composition, one-to-one, horizontal line test, inverse function
Objectives/Sequence	<ul style="list-style-type: none"> • Composition of functions • Inverse functions <ul style="list-style-type: none"> ○ Numerically ○ Graphically ○ Algebraically ○ When is the inverse a function?
Notes	<p>For Core Precalc, don't emphasize the finer points like domain of composite function, domain restriction for inverse functions</p> <p>However, do include $f(f^{-1}(x)) = x$</p>
HW	<p>HW#18</p> <p>Page 253 # 7-13 odd, 35-65 mult of 5</p> <p>Page 266 # 42-54 mult of 3</p>

Date	Thursday 11/11
Topic	Exponential functions
Textbook reference	5.3
Vocabulary	Exponential function, growth factor, initial value
Objectives/Sequence	<ul style="list-style-type: none"> • Constant ratio property • Properties of exponential functions • Base e
Notes	Show Hotmath.com first
HW	<p>HW#19</p> <p>Page 267 # 55-61 odd, 71-77 odd</p> <p>Page 280 # 21-42 mult of 3</p>

Week of 15-19 November

Date	Monday 11/15
Topic	Logarithmic functions
Textbook reference	5.4
Vocabulary	Logarithm
Objectives/Sequence	<ul style="list-style-type: none"> • Log as inverse of exponential function • Translating between log and exp form • Evaluating logs • Properties of log functions • Natural logs
Notes	
HW	HW#20 Page 282 # 89, 95, 96, 100 Page 293 # 9-75 mult of 3

Date	Wednesday 11/17
Topic	Properties of Logarithms
Textbook reference	5.5
Vocabulary	
Objectives/Sequence	<ul style="list-style-type: none"> • Inverse properties • Product, quotient, power properties • Change of base
Notes	
HW	HW#21 Page 304 # 9-75 mult of 3

Date	Friday 11/19
Topic	Logarithmic and exponential equations (part 1)
Textbook reference	Equations from 5.3, 5.4
Vocabulary	
Objectives/Sequence	<ul style="list-style-type: none"> • Exponential equations using $a^x = a^y \Rightarrow x = y$ • Log equations using $\log_a x = \log_a y \Rightarrow x = y$ • Equations using inverse relationship between exp/log
Notes	Chapter 5 Quiz first
HW	HW#22 Page 281 # 57-84 mult of 3 Page 295 # 87 – 111 mult of 3

Week of 22-26 November

Date	Tuesday 11/23
Topic	Log and exponential equations (continued)
Textbook reference	5.6
Vocabulary	Extraneous roots
Objectives/Sequence	<ul style="list-style-type: none"> • Log equations with extraneous roots • Quadratic-type equations • Other
Notes	
HW	HW#23 Page 311 # 6-81 mult of 3

Date	Thursday 11/25
Topic	Log and exponential modeling
Textbook reference	5.7-5.9
Vocabulary	Simple interest, compound interest, continuous compounding, exponential growth, exponential decay, logistic function
Objectives/Sequence	
Notes	
HW	HW#24 Page 320 # 5-55 mult of 5 Page 331 #3-27 mult of 3

Week of 29 November – 3 December

Date	Tuesday 11/30
Topic	Chapter 5 Review
Textbook reference	
Vocabulary	
Objectives/Sequence	Chapter 5 Review handout
Notes	
HW	

Date	Thursday 12/2
Topic	Chapter 5 Test
Textbook reference	
Vocabulary	
Objectives/Sequence	
Notes	Absent -- @ Puxi for HSAC, covered by Laurie
HW	

Week of 6-10 December

Date	Monday 12/6
Topic	Exam Review
Textbook reference	
Vocabulary	
Objectives/Sequence	<ul style="list-style-type: none"> • Go over Ch 5 Test • Exam self-assessment <ul style="list-style-type: none"> ○ 1st section – based on test self-assessments ○ 2nd section – based on topics • Exam review 1 <ul style="list-style-type: none"> ○ Log properties ○ Functions and transformations
Notes	<p>For exam review 2</p> <ul style="list-style-type: none"> • Piecewise functions • End of Ch 3 – discriminant, inequalities • End of Ch 4 – rational functions, synthetic division theorems, inequalities • More logs
HW	<p>HW#25</p> <p>Page 243 Cumulative Rev # 1-5 (all), 13-21 odd</p> <p>Page 348 Cumulative Rev # 7-15 (all)</p>

Date	
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Textbook reference	
Vocabulary	
Objectives/Sequence	
Notes	
HW	